

A STUDY OF ROLE STRAIN IN NURSING STUDENTS WITH
MULTIPLE ROLES

A Thesis

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by

Jeanette A. Gay

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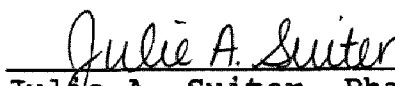
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An Abstract of a Thesis by

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The problem. The purpose of this study was to examine role strain in female nursing students.

Procedure. Role strain was measured utilizing the Lengacher Role Strain Inventory (1983). The approach used in this study was an ex post facto design. A convenience sample of 176 students from three different schools of nursing participated in this study. Demographic data was also collected.

Findings. This study found that marital status had no significant effect on role strain in all three programs. This study also found that there was a significant difference in role strain depending upon age in only one of the three programs. In addition, there was a significant difference in role strain of all three groups depending upon whether or not there were dependent children living at home.

Conclusions. This study suggests a need for continued research to examine role strain of women who are parents and also want an education and a career.

Recommendations. Further studies regarding child care obligations and role strain are recommended. Additional research is needed to examine other variables such as whether the subjects are working while going to school and whether age has any affect on role strain.

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CHAPTER 1

DIMENSIONS OF THE PROBLEM

Over the past few decades in American society, women's roles have changed considerably. Today, more than ever, women are combining professional roles with domestic obligations (Campaniello, 1988). Nurses returning to school are finding themselves in the simultaneous roles of mother, employee, student, and homemaker (Lengacher, 1983). Entry or re-entry of the female nursing student into the academic setting clearly requires role transition. During this transition, the nursing student must choose to what extent she will modify or change role expectations (Campaniello, 1988).

Women may develop greater role strain than men, perhaps resulting from less support for their multiple roles and greater concerns about balancing academic and family demands (Mallinckrodt & Leong 1992). Demands for time in the professional role frequently compete with demands for time in the family role. Women, unlike men, are expected to adapt the new role of student or working spouse without a significant lessening of their responsibilities as wife, homemaker, and possibly, mother (Mallinckrodt & Leong, 1992).

Role stress, role strain, and role conflict have

been documented to have negative and positive effects (Lengacher, 1993). It is not known whether nurses who return to a formal educational program experience role conflict and decreased well-being or whether their well-being is enhanced by increasing the number of their roles (Campaniello, 1988). Although marriage and parenthood can be sources of great satisfaction and happiness for women, these roles can also bring extreme stress (Russo, 1990). Employed women spend, on the average, 58% more time interacting with their children than do their husbands (Barnett & Baruch, 1987). Mothers work longer hours than fathers because their family responsibilities to household and children are not equally shared by fathers (Scarr, Phillips, & McCartney, 1989). The marital relationship can also be a source of stress for women. Multiple-role women with higher levels of marital adjustment have significantly lower levels of distress than do multiple-role women with low marital adjustment levels (McLaughlin, Cormier, & Cormier, 1988).

Multiple roles may provide more self-esteem, self-competence, and social support. Participation in multiple roles is crucially important for a sense of well-being for women (Mallinckrodt & Leong, 1992). The amount of role stress women endure seems to be related

to the acceptance and support that a woman receives for her choice to participate in multiple roles (Gilbert & Rachlin, 1987). Many women are able to manage their multiple roles in ways that add to their satisfaction in life without added strain (Mallinckrodt & Leong, 1992). Multiple role involvements do not always result in role conflict and role strain and can, in fact, lead to increased rewards (Campaniello, 1988).

In the past it has been assumed that role strain is a consequence of multiple roles but interest is now developing in the area of role quality (Piechowski, 1992). "The same role can be experienced differently depending on the person and the circumstances.

Research on multiple roles is now shifting from examining numbers of roles to analyzing the effects of specific role combinations, patterns, and characteristics" (Froberg, Gjerdingen, & Preston, 1986 p. 79). Attitudes and values may determine the effect of multiple roles on personal well-being.

Inconsistent results have been obtained by researchers studying multiple roles and role strain and understanding of the topic is incomplete. Because adequate role transition is vital to the nursing profession, this area should receive further study. The female nursing student's challenge is to make her

entire role system manageable and allocate her energies to reduce role strain to tolerable proportions and maximize role adjustment.

Purpose of the Study

The purpose of this study was to describe role strain in female nursing students. Specifically, the study will examine role strain experienced by female students attending three different types of nursing education programs, i.e. diploma, baccalaureate, and graduate.

Definition of Terms

For purposes of this study, terms are defined as follows:

1. Role stress: a condition in which role obligations are vague, irritating, difficult, conflicting, or impossible to meet (Hardy, 1987).
2. Role strain: a subjective experience that can be described as a tension, a driving force, anxiety, and/or frustration that a woman may experience due to multiple demands she puts upon herself or demands put upon her by others (Lengacher, 1993). Role strain will be measured using the Lengacher Role Strain Inventory (LRSI).
3. Diploma nursing students: female nursing students enrolled in their last year of a diploma

nursing program at a hospital-based school in a large midwestern city.

4. Baccalaureate nursing students: female nursing students enrolled in upper level nursing courses of a generic baccalaureate nursing program at a private midwestern college.

5. Graduate nursing students: female nursing students enrolled in graduate nursing courses at a private midwestern college.

Assumptions

There are three assumptions basic to this study:

1. One of the concerns for nursing students returning to school is the increasing demands of the many roles expected of the student.

2. Faculty in nursing schools want to provide a quality education and maximize the learning experiences available to nursing students without causing role strain.

3. Because fatigue, exhaustion, and depression may occur with role strain over time, role strain is considered an undesirable state.

Research Hypotheses and Rationale

1. There is no significant difference in the amount of role strain experienced by diploma nursing students

when compared by age.

2. There is no significant difference in the amount of role strain experienced by baccalaureate nursing students when compared by age.

3. There is no significant difference in the amount of role strain experienced by graduate nursing students when compared by age.

4. There is no significant difference in the amount of role strain experienced by diploma nursing students when compared by marital status.

5. There is no significant difference in the amount of role strain experienced by baccalaureate nursing students when compared by marital status.

6. There is no significant difference in the amount of role strain experienced by graduate nursing students when compared by marital status.

7. There is no significant difference in the amount of role strain experienced by diploma nursing students when compared by presence of dependent children living at home.

8. There is no significant difference in the amount of role strain experienced by baccalaureate nursing students when compared by presence of dependent children living at home.

9. There is no significant difference in the amount of

role strain experienced by graduate nursing students when compared by presence of dependent children living at home.

Significance of the Study

The significance of this study to nursing lies in the information it will add to the nursing body of knowledge pertaining to multiple roles and role strain of nursing students. More women are assuming nontraditional roles within an environment that expects them to continue to assume traditional responsibilities. This author believes that women need to be encouraged to develop career decisions based on intellectual capability and interest rather than on norms that have become obsolete.

Female nursing students are faced with many role expectations in addition to the academic pressures of a nursing program. In the educational environment, educators must be aware of the influence of multiple roles and assist students in the role transitions required to meet their goals. This study will add to the knowledge of whether certain variables affect the amount of role strain experienced by nursing students.

The concept of role strain for women, according to Lengacher (1993), is a vital concern in nursing. Assessing and identifying role strain among students

enables educators to assist with interventions in the academic environment. These interventions can maximize the learning experiences available to nursing students which in turn should increase the quality of the educated professional nurse. This increase in quality will be reflected in the quality of care given to clients.

Chapter II

REVIEW OF THE LITERATURE

This study examines role strain experienced by female students attending diploma, baccalaureate, and graduate nursing programs. This chapter begins with a description of the theoretical basis for this study, role theory and role strain. This is followed by a discussion of the literature on multiple roles and role strain in women. Research on role strain experienced by women returning to school concludes the chapter.

Role Theory and Role Strain

The theoretical underpinnings of this study come from the work of several authors in the area of role strain. Goode (1960), a major theorist in this field, defines role strain as "the felt difficulty in fulfilling role obligations" (p.483). Role strain has become a widely used term since Goode's definition in 1960 (Ward, 1986). Hardy (1978) defined role conflict as a "condition in which role obligations are vague, irritating, difficult, conflicting, or impossible to meet" (p.76). These authors viewed role conflict and role strain as being very related. Hardy's definition of role strain is consistent with Goode's (1960), and describes role strain as the "subjective state of distress experienced by a role occupant when exposed to

role stress" (p.76).

Goode (1960) believed that multiple role obligations can be a source of role strain. He further postulated that, even though the total set of role obligations is probably unique for every individual, the individual may face different types of role conflicts which he/she feels as role strains. Goode (1960) believed that the individual is likely to face a wide, distracting, and sometimes conflicting array of role obligations, and that if the individual conforms fully in one direction, fulfillment in another direction will be difficult.

Lengacher, 1983, studying role strain as a function of personality and career characteristics, defines role strain as "the subjective, tension, frustration, and anxiety a woman experiences due to the multiple role demands put on her" (p.3). Role strain is considered a normal experience (Goode,1960; Lengacher,1983). "The individual normally assumes more role obligations than can be handled and role strain results when she is confronted with various role demands or role conflicts" (Lengacher, 1983 p.3).

The term "role set" was introduced by Merton (1957) to describe the total aggregate of role relationships in which a person becomes involved. Both

Merton (1957) and Goode (1960) state that any role set possesses a potential for conflict because members of the set occupy different social positions . Snoek (1966), states that within each role there is a role set which designates all of the role relationships within the role. One question then arises. Is role strain caused by what happens in the role, by having multiple roles, or both?

Role strain has not been extensively studied but has become widely used since Goode's (1960) classic discussion of this concept. Goode identified the following types or sources of role strain: First, role demands are required at particular times and places. Second, all individuals interact in many role relationships, with different obligations for each relationship. Third, each relationship demands several activities which may include inconsistencies. Lastly, many role relationships are "role sets", meaning that in any one set, the individual engages in several role relationships. Because the individual is likely to face a wide array of role obligations, the individual's total role obligations are overdemanding. Goode defines role strain as the difficulty in meeting given role demands and views it as normal. The individual's challenge then is how to make the entire role system

manageable and to reduce role strain to some bearable proportions.

According to Goode (1960), role strain, which is normal and continuous, can be managed. The two main sets of techniques for reducing role strain described by this author include those which determine whether or when the individual will enter or leave a role relationship and those which have to do with the actual role bargain which the individual makes or carries out with another.

In looking at the first approach, Goode (1960), believed a person's ego uses several techniques to determine whether or when one will enter or leave a role relationship. One technique or method is termed compartmentalization which includes the belief that there is no overall set of societal values which requires consistency from the individual. Delegation, a second technique, is a method of achieving compartmentalization. That is to say that if a part of one's role is distasteful or time-consuming, the individual may delegate parts of that role to others. Another way of curtailing role relationships is to eliminate them. This may be difficult since many role obligations come from work or family responsibility. Some continuing role interaction is necessary to

maintain the individual's self-esteem and self-image. Extension or expansion of role relationships, according to Goode, can be used by an individual to not fulfill certain obligations in other roles. Expansion of role relations may also be done to facilitate other role demands. Goode believed that with expansion of role relations, role strain increases until eventually the individual begins to fail in some of his/her obligations. Lastly, the individual may use specific techniques to prevent others from initiating or continuing role relationships.

The second approach noted by Goode (1960) that reduces role strain is the role bargaining response. This indicates how one will actually perform in his role duties (Lengacher, 1983). Goode viewed role bargaining as a process of negotiation in which the person decides upon a price in the role bargain and sets limitations on what they are willing to perform adequately. For example: a woman enjoys school and puts much time and energy into it but decreases her social activities, which she also enjoys, thus paying highly for her new role. According to Goode, the individual should not perform obligations that have no return value. Putting a limitation on role bargaining can, therefore, reduce role strain.

Since Goode's analysis of role strain, various authors have modified its meaning (Kaplan, 1983). Biddle and Thomas (1966) agreed with Goode's theory and believed that pressures of role demands invoked a felt difficulty in fulfilling role demands. Hardy (1978) defined role strain as a subjective state of distress experienced by an individual when exposed to stress. Biddle, in 1979, defined role strain as those experiences of stress associated with positions or expected roles. These authors all agree that the properties of role strain include the perceptive or subjective state of the condition, the pressure of a stimulus as an etiological factor, and an undesirable or negative state. Some of the associated terms describing an undesirable state include distress, difficulty, and stressful (Ward, 1986).

Kaplan (1983) defined role strain differently than the previous authors. He viewed strain as the stressful stimuli of the role instead of strain being the resulting condition. This concept denotes strain as a verb rather than a noun. According to Ward (1986), Kaplan's definition of role strain lacks the response to or perception of role situations and should more appropriately be termed as role stress.

In addition to defining role strain, Goode also

identified four antecedents to this condition. The first is role conflict where there are contradictions within the expectation of the role. The second is role accumulation which involves the individuals taking part in many different role relationships, having various obligations. Role rigidities is the third antecedent identified by Goode and are role demands that must be met and are confined by time and place. The final source of role strain is the amount of activity (role intensity) needed for certain roles. These four antecedents have been analyzed and found to have conflicting results (Burr et al. 1979). One common thread in these roles antecedents is the difficult fulfillment of role demands (Ward, 1986).

In addition to antecedents, there are also attributes of role strain. Sarbin (1968) identified fatigue and exhaustion as attributes occurring over time. Worrying or thinking about the problem or conflict are attributes or responses to role pressures (Sarbin & Allen, 1968). Burr et al. (1979) identified levels of strain experienced by the individual, ranging from slight frustration to extreme guilt and anxiety. Kahn et al. (1964) discussed anger, hostility, and tension as possible responses to role stresses. Ward (1986) includes depression, embarrassment, guilt, and

job dissatisfaction as attributes of role strain.

Stressors can also produce a physiological response, such as increases in diastolic blood pressure, galvanic skin response changes, and rises in plasma-free fatty acids (Williams, Kimball, & Willard, 1972) (Back & Bogdonoff, 1964). Ulcers and even death have been associated with continued role strain (Mitchell, 1968). These negative states are important to understand in order to develop and implement strategies to avoid them (Ward, 1986).

Ward (1986) stated that not all authors considered role strain as negative or detrimental. Stryker & Macke (1978) identified role strain as being desirable and enhancing role performance. These authors, however, were using the term role strain to indicate etiological stressors. Some authors suggest that the antecedents of role strain do not always lead to role strain, but may produce desirable effects of role gratification (Ward, 1986).

Previous Studies Relating to Multiple Roles and Role Strain

Research supports and role theory predicts that multiple roles can lead to stressors or conflict and in turn to role strain. Role strain suggests a subjective element. Role stress and role strain have been

described as having both positive and negative effects. While there has been some current published research in this area, much of the reported findings date to the 1970's.

Hall (1972) stated that the home role is the major source of strain for college educated women. He identified problems of a married woman's roles as those of multiple roles, interrole conflict, and overload. Hall used a pilot sample and a subsequent survey of college educated women to study the relationship between role conflict, coping strategies, and personal satisfaction in order to develop and explore a general coping model. The pilot sample consisted of three groups of women to whom the author had given talks on women roles. In two groups, the questionnaire was administered in person and in the third it was sent through the mail. Approximately 250 questionnaires were mailed with 109 usable questionnaires received. The results indicated that the simple act of coping may be more strongly related to satisfaction in women than the type of coping strategy used.

In looking at career choices of married women, Hall and Gordon (1973), studied the conflicts, pressures, and satisfactions associated with three career options available: full-time employment, part-

time employment, and being a full-time housewife. The main hypothesis was that satisfaction would be related to the extent to which women actually did what they ideally prefer to do. The questionnaires included topics regarding marital status, present work activities, preferred work activities, present roles, role conflicts, and satisfaction.

For all three groups, home pressures were the most important contributor to women's role conflicts. Full-time housewives who preferred that role were significantly more satisfied than those who indicated they would prefer not to be full-time housewives ($p < .01$). In both cases of full- or part-time employment, those who were presently working and preferred working were not significantly more satisfied than those who were working but would prefer not to. According to Hall & Gordon (1973), these results suggest that career choices of the work-oriented married woman are more difficult to implement than are the choices of home-oriented women. The woman preferring to work may encounter increased role conflicts, time pressure, prejudice, and discrimination and these problems may offset the satisfaction received by doing what she prefers to do.

In looking at the role of spouse and the role of

student, Feldman (1973) conducted a study to examine how the spouse role affects students in graduate study. The data used for this study was from a nationwide sample of graduate students including approximately 33,000 completed mail questionnaires, a 65% response rate. Among married students, 21% of the women as compared with 9% of the men stated that pressure from their spouse might cause them to drop out of school. Student and marital roles were not independent. According to Feldman, the effects of marital status upon the student role depends upon the adherence to the "traditional" spouse role. Feldman also noted that there is a conflict between the role of wife and the role of student, thus marriage has a dramatic effect upon the role of women.

Berkove (1979) also studied husband support as a factor contributing to stress in women returning to college. In a descriptive study of perceptions of husband support and family role change, Berkove mailed questionnaires to returning women students. There were 361 respondents (77% response rate). Husband support was referred to as husband's general attitude toward women's roles as well as emotional support. Four aspects of husband support were studied: attitudinal, emotional, financial, and behavioral. The study was

retrospective and focused on the women's subjective recollections and feelings about perceived husband support. The women who reported feeling the least stress were those who saw their husbands as holding more liberal attitudes regarding women's roles and capabilities ($p < .01$), those who reported that their husbands were supportive of their schooling ($p < .01$), those whose husbands supported them financially ($p < .05$), and those whose husbands were involved in household tasks ($p < .01$) (Berkove, 1979).

Other studies have supported the notion that working married women with families have to manage more roles and role conflicts than men. The conflicts are very different for women depending on the different stages of their families' growth (Hall 1975). Hall mailed questionnaires to 450 women from five different graduating classes at the University of Connecticut. After one follow-up, 261 usable responses were received. The questionnaire covered the following issues: number and ages of children, self-image, present roles, role pressures, satisfaction and happiness. The roles most frequently mentioned were wife, mother, housewife, employee, volunteer worker, and self. Focus was directed at the existence of conflict, not on the frequency or intensity of the

conflict. The correlations of age, life stage, and number of roles with role outcomes was addressed.

Results of Hall's study indicated that age had little to do with the role experiences of the women studied. Number of roles ($p < .01$) and life stage ($p < .05$) showed significant relationships with the role variables. Both were related positively to the presence of role conflict. In addition, there were generally positive relationships between number of roles, life stage, satisfaction, and happiness. Results also indicated that life stage was a stronger predictor of pressures than the number of roles performed. Number of roles was a stronger predictor than life stage of the two role variables: presence of conflict ($p < .01$) and work pressure ($p < .05$). Life stage was measured in this study in terms of the ages and number of children, thus children were identified as a major factor influencing a married woman's perceived role pressures.

Cooke and Rousseau (1984) contended that the added pressures of working outside of the home contribute to the stress of women. They focused their study on elementary and secondary public school teachers. Eight teachers were randomly selected from a random selection of twenty-five schools. The teachers were interviewed

on job dissatisfaction, life dissatisfaction, and physical health. They were also asked to fill out a questionnaire which focused on various aspects of their jobs and organizations including work role expectations.

Correlations were computed and the hypothesis were tested using regression analyses. The correlations indicated that the three strain variables of job dissatisfaction, life dissatisfaction, and physical strain were positively intercorrelated as were the two stressors of interrole conflict and perceived work overload. Regression of role conflict against the work and family-role variables yielded a correlation of .33 ($p < .0001$). Partial regression coefficients for these two independent variables were significant ($p < .01$). Role theory predicts that multiple roles can lead to stressors and results of this study are consistent with role theory's predictions. It is interesting to note, however, that even though family roles and work expectations appear to exacerbate strain, family-role expectations seem to reduce the amount of physical strain individuals experience (Cooke & Rousseau).

More recent literature also demonstrates that multiple roles are associated with both competing demands which can lead to role overload and role

strain, and positive effects such as improved self-esteem. Gray (1983) studied a group of 300 professional married women (doctors, lawyers, and professors) and examined role conflicts and coping strategies. A questionnaire was designed to obtain background data, and information on attitudes, role conflicts, coping strategies, and satisfaction with handling of roles. The final response rate was 80.6%. Results showed that 77% of the women in the sample often experienced strains between home and career roles. Over half of the respondents had ambivalent feelings about someone else caring for their children. Over 80% of the women reported that family members helped with chores, that they had reduced standards within certain roles, and rotated their attention among roles, depending on the need. 85% of the sample, reported that they were mildly or extremely satisfied with the way in which they handled their roles. Gray suggested that many of the findings in this study differed from previous studies and that it appeared that multiple roles, combined with effective coping strategies, can be rewarding.

Verbrugge (1983) surveyed white Detroit adults in 1978 using a multistage probability sample of households. The participants were interviewed and

asked to keep a daily health record for six weeks. A total of 714 respondents (302 men, 412 women) completed the interview and 589 (243 men, 346 women) kept the daily health record for at least one week. The researchers were concerned with how major roles relate to physical health, which roles had the strongest link with health, if multiple roles have a negative effect on health, and if roles affect men and women the same. Results indicated that the three roles of employment, marriage, and parenthood were associated with good physical health ($p < .05$). Employment was found to have the strongest relationship to good health. The combination of job and family roles had no special effects on health (Verbrugge).

Mallinkrodt and Leong (1992) surveyed students living in graduate student housing to assess social support in their academic programs and family environments, recent stressful life events, and psychological symptoms of stress. A MANOVA was used to compare male and female students regarding negative life events, depression, anxiety, graduate program support factors, and family environment factors. The analyses resulted in significant sex differences. These results indicate greater role strain for women, possibly resulting from less support for their multiple

roles and concerns about balancing their personal and academic lives ($p < .001$).

McBride (1990) believes that the mental health effects of multiple roles need to be examined more closely. She described indicators of role strain as somatization, depression, anxiety, obsessive compulsiveness, discomfort, anger/hostility, and dissatisfaction. According to McBride, parenting, women's participation in the work force, and caring for elderly relatives contributes significantly to role overload.

Hemmelgarn and Laing (1991) were also concerned about the persistence of role strain leading to a deterioration of physical and mental health. They examined the relationship between situational and background factors, especially individual attitudes and perceptions. The study conducted by these authors examined role strain experienced by women returning to work following the birth of their first child. The sample was obtained from the health records of three health centers in Canada and questionnaires were sent to 120 participants with a response rate of 94.2%. Results of this study indicated the importance of addressing individual attitudes and perceptions in relation to multiple roles. Using Pearson correlation

($p < .05$), the results revealed that women who were satisfied with their current job had a lower level of role strain which was consistent with previous research. Results revealed that women who worked full-time experienced higher levels of role strain than women who were employed part-time or in not-regularly scheduled positions ($p < .05$). Regression analysis also showed that women who were satisfied with their particular child care arrangements experienced lower levels of role strain ($p < .05$).

Studies Relating to Role Strain in Nursing Students

Prior to 1983, no studies of role strain in nurses with concurrent roles of homemaker, mother, employee, and student had been done. There also was no model that would predict and explain role strain specifically for women. In 1983, Cecile Lengacher developed and tested a research model that identifies individual characteristics which develop and predict role strain and developed a role strain inventory. This inventory was entitled Lengacher Role Strain Inventory. The purpose of this tool was to assess the characteristic of role strain in female nursing students who have multiple roles. It was first tested in a descriptive study of the relationship of personality, stage of

career development, and marital status to role strain. The study involved 86 female nurses attending nursing school. Volunteers were obtained through announcements placed in their mailboxes. Results of a stepwise regression analysis showed that personality traits, stages of career development, and marital status are significant predictors of role strain in RN students who were returning to school for a baccalaureate degree.

Only one other study was found that examined professional nurses returning to school and well-being in multiple-role women. Campaniello (1988) studied the effect of multiple roles on professional nurses who returned to a formal education program and found that multiple roles did not increase perceived role conflict. In this study, 155 female students enrolled full-time in a baccalaureate completion program for registered nurses were asked to complete a biographical sheet, the Bem Inventory, and the Center for Epidemiological Studies Depression Scale (CES-D). The Bem Inventory is constructed to measure the degree of sex-role stereotyping present in an individual's concept of self. The CES-D is a self-report scale of symptoms used to assess the level of well-being.

The role of parent was found to be a major source

of conflict in this study. In a stepwise multiple regression analysis, the single most important variable explaining the role conflict score was that of being a mother ($p < 0.007$). However, nurses with more roles experienced greater well-being than nurses with fewer roles. The one-way analysis of variance showed a lower score on the CES-D (indicating greater well-being) for nurses who occupy three or four roles than for nurses who occupy two roles ($p < .01$). Campaniello (1988), therefore, believes that it is not the number of roles but the occupancy of particular roles that can influence role conflict.

Summary

Role theory has provided the basis for a number of studies concerning multiple roles, role conflict, role stress, and role strain. There is ample literature demonstrating that multiple roles are associated with role overload, which can lead to role stress and resulting strain. There is also evidence in the literature that prolonged role strain can cause harmful effects.

Research has documented the importance of looking at many variables and the interaction of those variables in understanding the risk of role strain. Age, marital status, caregiving obligations, employment

and socioeconomic status were identified as important variables for women who then make the decision to return to school. Very little has been documented in the area of nursing students returning to school and the subsequent role strain experienced. The literature is not clear on whether multiple roles increase or decrease role strain with this group.

As previous studies concerning multiple roles and role stress and strain have yielded conflicting and confusing results, more research needs to be done in this area. Specifically, there is a need to determine how the additional role of student affects the female nursing students since this can ultimately affect the performance of the nurse following graduation and can contribute to the profession.

Chapter III

METHODOLOGY

The purpose of this study was to describe and examine role strain in female nursing students attending three different types of nursing education programs. In this chapter the design, subjects, sampling method, data collection tools, data gathering procedure, and methods of analysis are described.

Design

The participants consisted of students enrolled in a diploma nursing program, students enrolled in a baccalaureate nursing program, and students enrolled in a graduate nursing program. An ex post facto design was used to examine role strain experienced by nursing students who were attending these nursing education programs.

Sampling Method

A convenience sample was used for this study. Permission was obtained from the Director of the Nursing Program in each of the three schools. Diploma students in their fourth or fifth semester, baccalaureate nursing students in their last two years of their nursing program, and all graduate students attending classes during the data collection period were invited to participate.

Subjects/ Setting

The subjects consisted of nursing students from three nursing programs. All three programs are located in a large midwestern city with a population of approximately 250,000 people. All three nursing programs are accredited by the Iowa Board of Nursing and the diploma and baccalaureate programs are accredited by the National League of Nursing. The graduate program will be seeking accreditation from the National League for Nursing. All three colleges are on a semester system.

The Diploma program is structured as a curriculum presented over a five semester calendar. The average enrollment for the past two years (1992-1993) has been 250-300 students. The average number of graduates from this program in the last four graduating classes (1992-1993) was 43.

The Baccalaureate school is largely a commuter school. This college is a private, liberal arts institution, affiliated with the Lutheran Church, with an average enrollment of approximately 1300 students. The nursing program is four years in length and offers a Baccalaureate of Science in Nursing degree (BSN). The average number of graduates from the nursing program each year for the past four years (1990-1993)

was 21.

The Graduate school is a commuter and resident school. This college is a private, liberal arts institution with an average enrollment of approximately 5,000 students. The Masters in Nursing (MSN) program is a part-time program offering advanced nursing education in the roles of administration and education. The average number of graduates from the nursing program each year for the past four years (1990-1993) was 18.

Data Collection Tools

Role strain in this study was measured using the Lengacher Role Strain Inventory (LRSI), an instrument that measures the dimension of role strain (See Appendix A). This instrument was devised in 1983 by C. A. Lengacher (1993) and consists of 100 statements which are rated using a five-point Likert-type scale ranging from (1) strongly disagree to (5) strongly agree as response categories. The items are coded so that the higher the response number, the higher the role strain experienced by the person. The possible range of points is from zero to 500. A zero would indicate absolutely no role strain and 500 would indicate complete role strain choice on all the items.

Reliability of the LRSI was determined using

coefficient alpha when the tool was originally developed in 1983. In a more recent study, Lengacher includes the original pilot group and nursing student group and tests the instrument for reliability, and content and construct validity (Lengacher, 1993). The pilot group and the nursing student group were combined with two other nursing student groups and two nonnursing community college groups and were used for reliability data collection. The alpha coefficient for the six groups varied from .87 to .95. The lowest reliability coefficient (.87) was noted in the nonnursing male group (Lengacher, 1993). The coefficient alpha was greater than .90 in all three nursing groups.

Lengacher's (1993) combined sample was composed of 327 nursing and nonnursing students in three colleges. All students were recruited on a volunteer basis. The rationale for collecting data on nonnursing students was that if the LRSI was a valid role strain inventory for women, then a difference should exist in a contrasted group, the male students. Evidence of construct validity of the LRSI was demonstrated when the mean score differences between the groups that included nursing and nonnursing college students was examined.

T-tests for independent samples were completed between groups and resulted in significant differences of $p < .05$, $p < .01$, $p < .0001$, and $p < .0000$.

Content validity was first determined in 1983 from a review of the literature and then validated by a panel of experts. The content used to design the instrument was obtained from a review of the literature relating to women who work, have a family, and go to school (Lengacher, 1993). Evidence of construct validity was demonstrated by comparing the mean scores of female nursing students (253.52-277.61) with the mean scores of male and female nonnursing students (246.03-247.15). This comparison yielded statistically significant differences between these groups. This difference provided evidence for construct validity of the LRSI (Lengacher, 1993).

A demographic data questionnaire designed by this researcher was also used in this study. It included information regarding age, marital status, number of children, place of residence, work status, and school status (full- or part-time) (see Appendix B).

Data Gathering Procedure

Permission to conduct this study was obtained from the head of each nursing program (see Appendix C). Each nursing instructor was then contacted for

permission to administer the questionnaires to all students during the regular class period. Arrangements were made with each instructor to plan a time for the questionnaires when a test was not scheduled. Diploma, baccalaureate, and graduate students were given the questionnaires to complete in November and December of academic year 1993-1994.

A cover letter with information regarding the nature and purpose of the study accompanied each set of questionnaires (see Appendix D). The questionnaires were distributed to the students by the researcher in nursing classes students were attending. The tools were administered at a time mutually acceptable to both institution and researcher. The questionnaires took approximately fifteen to twenty minutes to complete. The researcher was present while the students completed the tools and the students submitted the tools to the researcher upon completion.

Protection of Human Rights

Permission to conduct this study was obtained from Drake University Human Subjects Research Review Committee and the Director of each nursing program. The subjects were informed that the completion of the instrument was both voluntary and anonymous. The questionnaires were coded by program type only and the

subjects were instructed not to put their names on the questionnaire. The subjects were told that they could refuse to participate and that refusal to participate did not affect their status as students. All data was reported in the aggregate.

Analysis of Data

Demographic data of all the subjects are reported in table format. An independent t-test was performed for each subsample to test for a difference in role strain based on marital status (married vs. nonmarried). An independent t-test was also performed for each subsample to test for a difference in role strain based on whether or not there were dependent children living at home. A one-way analysis of variance (ANOVA) was done for both the baccalaureate and the diploma programs to determine if there was a difference in role strain of the female student based upon age. Due to the small numbers in the age categories of the graduate program, the age categories were collapsed into two age groups and an independent t-test was performed.

Chapter IV

FINDINGS

The purpose of the study was to describe role strain in female nursing students and to examine the role strain experienced by female students attending three different types of nursing education programs. Nine hypotheses were tested. This chapter will begin with the presentation of demographic data. This chapter will conclude with the results of statistical testing for each of the hypotheses.

Table 1 depicts the number of possible subjects from each nursing program and the actual number and percentages of usable questionnaires. As can be seen in this table, there was a larger percentage of participation by the student groups in the diploma and graduate programs than in the baccalaureate program.

TABLE 1

Subjects in the Study (N=176)

Types of students	# of possible students	N	%
Diploma	108	97	90
Baccalaureate	72	44	61
Graduate	37	35	95

Table 2 displays the age breakdown of the sample. The most frequent age range differed in each program. Those students enrolled in the graduate program tended to be older with nearly half of the students in the 41-50 age group. Students enrolled in the four year program (baccalaureate) tended to be the youngest with slightly more than half in the 18-22 age range. The diploma students were more evenly distributed between the first three age groups.

Table 2

Distribution of Age Range

Age	Diploma		Baccalaureate		Graduate		Totals
	N=97	%	N=44	%	N=35	%	N=176
18-22	32	33%	23	51%	0	0%	55
23-30	33	34%	15	36%	1	3%	49
31-40	26	27%	6	13%	15	43%	47
41-50	6	6%	0	0%	17	48%	23
51-60	0	0%	0	0%	2	6%	2

Table 3 depicts demographic data obtained from the subjects regarding the number of dependent children living at home. No subjects in the baccalaureate group had more than one child and the majority in this group had no children. The majority in the diploma group also had no children. For purposes of this study, the samples were further categorized according to those who had dependent children living at home and those who did not. Results of this breakdown are found in Table 4.

Table 3

Distribution of # of Dependent Children

# of Children	Diploma		Baccalaureate		Graduate		Totals
	N=97	%	N=44	%	N=35	%	N=176
0	55	57%	38	86%	13	37%	106
1	9	9%	6	14%	7	20%	22
2	20	21%	0	0%	12	34%	32
3	10	10%	0	0%	3	9%	13
4	3	3%	0	0%	0	0%	3

Table 4

Distribution of Dependent Children

Children	Diploma		Baccalaureate		Graduate		Totals
	N=97	%	N=44	%	N=35	%	N=176
YES	42	43%	6	14%	22	63%	70
NO	55	57%	38	86%	13	37%	106

Table 5 illustrates demographic data collected from the subjects regarding their marital status. The majority of graduate subjects were married whereas the majority of baccalaureate and diploma subjects were not. The diploma group had the highest incidence of divorce. For purposes of this study, the samples were further categorized according to those who were married and those who were not married. Results of this breakdown are found in Table 6.

Table 5

Distribution of Marital Status

Marital Status	Diploma		Baccalaureate		Graduate		Totals
	N=97	%	N=44	%	N=35	%	N=176
Married	40	41%	7	16%	29	82%	76
Never Married	46	47%	36	82%	3	9%	85
Divorced	11	11%	1	2%	3	9%	15
Widowed	0	0%	0	0%	0	0%	0

Table 6

Distribution of Marital Status

Married	Diploma		Baccalaureate		Graduate		Totals
	N=97	%	N=44	%	N=35	%	N=176
YES	40	41%	7	16%	29	83%	76
NO	57	59%	37	84%	6	17%	100

Table 7 looks at the work status of the three subsamples. The majority of the diploma and baccalaureate subjects work part-time whereas the majority of the graduate subjects work full-time. Approximately one fourth of the diploma subjects were currently not working.

Table 7

Distribution of Work Status

Work Status	Diploma		Baccalaureate		Graduate		Totals
	N=97	%	N=44	%	N=35	%	N=176
Full-time	3	3%	1	2%	27	77%	31
Part-time	69	71%	36	82%	7	20%	112
Not working	25	26%	7	16%	1	3%	33

Table 8 depicts the enrollment status of the subjects in the three groups. The majority of the diploma and baccalaureate subjects were enrolled in

school full-time while the majority of the graduate subjects were enrolled in school part-time.

Table 8

Distribution of School Status

School Status	Diploma		Baccalaureate		Graduate		Totals
	N=97	%	N=44	%	N=35	%	N=176
Full-time	94	97%	41	93%	3	9%	138
Part-time	3	3%	3	7%	32	91%	38

Table 9 provides demographic data collected from the subjects regarding places of dwelling. All of the graduate subjects owned there own home, whereas 41% of the diploma and 18% of the baccalaureate subjects owned their own homes. Over one half of the baccalaureate and nearly one third of the diploma subjects lived in an apartment.

Table 9

Distribution of Domicile

Domicile	Diploma		Baccalaureate		Graduate		Totals
	N=97	%	N=44	%	N=35	%	N=176
Dorm	6	6%	4	9%	0	0%	10
Apartment	30	31%	25	55%	0	0%	55
With parents	21	22%	7	18%	0	0%	28
Own home	40	41%	8	18%	35	100%	83

Table 10 reports the mean scores and standard deviation of the LRSI according to age, number of children, marital status, work status, school status, and place of dwelling for the graduate subjects. The mean LRSI was highest in the 31-40 age group with all other groups having similar means. The LRSI scores were also higher in the group of subjects with two children. Those subjects with no children had the lowest LRSI mean score.

The mean of the LRSI in relation to marital status looked very similar between the married and the never married. The never married and the divorced groups are small, however, with only three subjects in each group.

In examining work status, those who were full-time had a mean LRSI similar to those working part-time. One subject who did not work had a much lower LRSI mean. The subjects attending school full and part-time also had similar LRSI scores.

Table 11 reports the mean scores and standard deviation of the LRSI according to age, number of children, marital status, work status, school status, and place of dwelling for the baccalaureate subjects. The mean LRSI was highest in the 31-40 age group but there were only 6 cases in that age group compared to 15 and 23 cases in the two younger age groups. The

Table 10. Mean Score on the LRSI for Graduate Subjects (N=35)

<u>Mean Score on the LRSI for Graduate Subjects (N=35)</u>			
Graduate subjects	# of Cases	Mean	Standard Deviation
<u>Age</u>			
23-30	1	233.000	0.000
31-40	15	270.000	50.018
41-50	17	231.176	55.961
51-60	2	231.000	24.042
<u>Number of Children</u>			
0	14	225.714	36.831
1	6	248.833	58.077
2	12	272.500	63.907
3	3	250.667	50.521
<u>Marital Status</u>			
Married	29	252.069	54.145
Never Married	3	241.333	24.583
Divorced	3	213.667	75.049
<u>Work Status</u>			
Full-time	26	249.808	50.673
Part-time	8	253.250	60.209
Not working	1	154.000	0.000
<u>School Status</u>			
Full-time	3	251.667	15.822
Part-time	32	247.500	56.272
<u>Domicile</u>			
Dorm	0	0.000	0.000
Apartment	0	0.000	0.000
With parents	0	0.000	0.000
Own home	35	247.857	53.882

mean LRSI was also higher in those subjects with children, but only six of the 44 subjects in this group had one child and the remaining subjects had no children.

Those subjects that were married scored higher on the LRSI than those never married. One subject in this group was divorced and this LRSI score was higher than the married subjects. The mean LRSI scores were very similar among the subjects working or not working. Those subjects in school full-time had a higher mean LRSI score than those subjects in school part-time. Those subjects who owned their own home had a higher mean LRSI score than those living in dorms, apartments, or with parents.

Table 12 depicts the mean scores and standard deviation of the LRSI according to age, number of children, marital status, work status, school status, and place of dwelling for the diploma subjects. Those subjects in the age group 31-40 had the highest mean LRSI score while the means of the other age groups were similar. Those subjects with no children had a lower mean LRSI score than those with children, while those subjects with three children had the highest mean score.

Table 11 Mean Score on the LRSI for Baccalaureate Subjects

Mean Score on the LRSI for Baccalaureate Subjects (N=44)

Subjects	# of Cases	Mean	Standard Deviation
<u>Age</u>			
18-22	23	259.652	29.879
23-30	15	264.200	30.857
31-40	6	282.333	41.979
<u># of Children</u>			
0	38	259.026	30.807
1	6	297.667	16.609
<u>Marital Status</u>			
Married	7	285.429	25.468
Never married	36	259.056	31.427
Divorced	1	305.000	0.000
<u>Work Status</u>			
Full-time	1	260.000	0.000
Part-time	36	264.139	33.201
Not working	7	265.714	30.598
<u>School Status</u>			
Full-time	41	266.195	32.262
Part-time	3	238.333	14.640
<u>Domicile</u>			
Dorm	4	256.750	27.023
Apartment	25	258.280	32.954
With parents	7	268.143	17.218
Own home	8	283.500	37.819

As seen in the graduate and baccalaureate samples, the mean LRSI score of those who were divorced was higher than those who were married, and those who were married is higher than those who have never married. The subjects who worked full-time scored higher on the LRSI than those who worked part-time or did not work at all, but only three subjects from this group worked full-time. As similar to the graduate subjects, there was a higher mean LRSI score in those subjects who were in school part-time as compared to those in school full-time. As with the baccalaureate subjects, those subjects in the diploma program who owned their own home scored higher than those who lived in a dorm, an apartment, or with parents. Those living with parents had the lowest mean LRSI score.

TABLE 12

Mean Score on the LRSI for Diploma Students (N=97)

Diploma Subjects	# of Cases	Mean	Standard Deviation
<u>Age</u>			
18-23	32	235.188	36.214
23-30	33	245.273	43.491
31-40	26	263.923	45.083
41-50	6	242.833	16.975
<u># of Children</u>			
0	53	232.057	38.522
1	11	263.727	39.103
2	20	263.000	28.988
3	10	275.000	50.401
4	3	243.000	56.321
<u>Marital Status</u>			
Married	40	256.100	38.324
Never married	46	235.087	41.118
Divorced	11	261.909	44.608
<u>Work Status</u>			
Full-time	3	260.000	33.061
Part-time	69	247.580	43.971
Not working	25	243.040	35.921
<u>School Status</u>			
Full-time	93	245.591	41.640
Part-time	4	274.750	30.369
<u>Domicile</u>			
Dorm	6	229.167	37.552
Apartment	30	250.833	43.622
With parents	21	226.143	44.281
Own home	40	257.250	35.232

Results of Statistical Analyses

The first three hypotheses that were analyzed are as follows:

Null Hypothesis 1: There is no significant difference in the amount of role strain experienced by diploma nursing students when compared by age.

Null Hypothesis 2: There is no significant difference in the amount of role strain experienced by baccalaureate nursing students when compared by age.

Null Hypothesis 3: There is no significant difference in the amount of role strain experienced by graduate nursing students when compared by age.

Tables 13 and 14 depict the results of the statistics used to test the first two hypotheses. As seen in both of these tables, the analysis of variance for the baccalaureate and diploma groups indicate no significant difference in the amount of role strain experienced when analyzed by age. Based on these results, null hypotheses 1 and 2 were not rejected.

Due to the small numbers in the age categories 23-30 and 51-60 of the graduate sample, the age categories were collapsed into two age groups: 23-40 and 41-60 and an independent t-test was performed. As seen in Table 15, there was a significant difference in the amount of role strain experienced by the two age groups. Role

strain was greater in the 23-40 age group than in the 41-60 age group. Based on these results, null hypothesis 3 was rejected.

Table 13

Results of ANOVA Comparing Role Strain by Age for Baccalaureate

Subjects	SS	DF	MS	F Value	P Value
Baccalaureate	2448.208	2	1224.104	1.201	.311

*p<.05, **p<.01

Table 14

Results of ANOVA Comparing Role Strain by Age for Diploma

Subjects	SS	DF	MS	F Value	P Value
Diploma	12109.776	3	4036.592	2.447	.069

*p<.05, **p<.01

Table 15

Results of Independent t-test Comparing Role Strain by Age forGraduate

	N	Mean	SD	df	t	p
Age 23-40	16	267.688	49.285	33	2.095	.044 *
Age 41-60	19	231.158	53.064			

*p<.05, **p<.01

Hypotheses 4, 5, and 6 were related to marital status and read as follows:

Null Hypothesis 4: There is no significant difference in the amount of role strain experienced by diploma nursing students when compared by marital status.

Null Hypothesis 5: There is no significant difference in the amount of role strain experienced by baccalaureate nursing students when compared by marital status.

Null Hypothesis 6: There is no significant difference in the amount of role strain experienced by graduate nursing students when compared by marital status.

A t-test was used to test each of these hypotheses.

Tables 16 through 18 depict the results. As seen in these tables, there was no significant difference in the amount of role strain experienced by diploma, baccalaureate, or graduate nursing students when analyzed according to marital status. Therefore these null hypotheses were not rejected.

TABLE 16

Results of Independent t-test Comparing Role Strain by
Marital Status for Graduate

	N	Mean	SD	df	t	p
Married	29	252.069	54.145	33	1.017	.316
Not married	6	227.500	52.195			

*p<.05, **p<.01

TABLE 17

Results of Independent t-test Comparing Role Strain by
Marital Status for Baccalaureate

	N	Mean	SD	df	t	p
Married	7	285.429	25.468	42	1.963	.056
Not married	37	260.297	31.895			

*p<.05, **<.01

TABLE 18

Results of Independent t-test Comparing Role Strain by
Marital Status for Diploma

	N	Mean	SD	df	t	p
Married	40	256.100	38.324	95	1.873	.064
Not married	57	240.263	42.755			

*p<.05, **p<.01

Hypotheses 7, 8, and 9 are related to dependent children and read as follows:

Hypothesis 7: There is no significant difference in the amount of role strain experienced by diploma nursing students when compared by the presence of dependent children living at home.

Hypothesis 8: There is no significant difference in the amount of role strain experienced by baccalaureate nursing students when compared by the presence of dependent children living at home.

Hypothesis 9: There is no significant difference in the amount of role strain experienced by graduate nursing students when compared by the presence of dependent children living at home.

A t-test was used to test each of these

hypotheses. Tables 19 through 21 depict the results. As seen in these tables, there was a significant difference in the amount of role strain experienced by the diploma, baccalaureate, and graduate nursing students when compared by having or not having dependent children living at home. Role strain scores were higher in the groups that had dependent children living at home. Based on these results, null hypotheses 7, 8, and 9 were rejected.

TABLE 19

Results of Independent t-test Comparing Role Strain by
Dependent Children for Graduate

CHILDREN	N	Mean	SD	df	t	p
YES	22	262.619	59.006	33	2.080	.045 *
NO	13	225.714	36.831			

*p<.05, **p<.01

TABLE 20

Results of Independent t-test Comparing Role Strain by
Dependent Children for Baccalaureate

CHILDREN	N	Mean	SD	df	t	p
YES	6	297.667	16.609	42	2.984	.005 **
NO	38	259.026	30.807			

*p<.05, **p<.01

TABLE 21

Results of Independent t-test Comparing Role Strain by
Dependent Children for Diploma

CHILDREN	N	Mean	SD	df	t	p
YES	42	264.545	38.278	95	4.147	.000 **
No	55	232.057	38.522			

*p<.05, **p<.01

CHAPTER V

DISCUSSION AND SUMMARY

This study examined role strain experienced by nursing students in diploma, baccalaureate, and graduate schools using the LRSI tool. Subjects completed a demographic questionnaire and also completed the LRSI tool relating to the amount of role strains they were experiencing. Nine hypothesis were tested. In this chapter major findings and limitations of the study are discussed. Recommendations for further investigation are presented and the chapter concludes with implications for nursing.

Limitations

The most significant limitation of the study was the sample size. The samples at the graduate and baccalaureate schools were small, not randomly selected and not necessarily representative of baccalaureate and graduate students. The diploma sample, while larger, was not randomly selected and therefore not necessarily representative of diploma students. Students from these schools may not represent the socioeconomic, ethnic, or age profile of students at other programs. Thus, the ability to generalize findings from this study is limited.

Another limitation of the study was the timing of administering the questionnaire. Some factors that may have contributed to the variations in LRSI scores would include personal factors such as fatigue, level of health, or mood of the student. The timing of the administration of the questionnaires varied from group to group and could have been at times when fatigue was high.

An important limitation was that the tool did not have a category for not applicable. Those subjects who did not have a significant other or who did not have children had no mechanism for indicating that questions related to these variables were not applicable for their life situation. Thus, interpreting these respondents answers to those questions was problematic and may have affected the results of the study.

Discussion of Findings

The participation rate for the baccalaureate subsample was significantly less than for the other two subsamples. Due to a scheduling conflict, the researcher was unable to access one group of baccalaureate students.

This researcher failed to reject the null hypotheses that predicted no significant difference in LRSI scores by age groups in both the baccalaureate and

the diploma programs. The age groups did score significantly different from each other in the graduate program, however, because of the low number of subjects in two of the age groups, only two age groups were compared (23-40 and 41-60). Those graduate subjects in the 23-40 age group scored higher on the LRSI than those in the older group.

The literature reports conflicting results when stress is studied in relation to age. Baruch et al (1983) studied women with various role combinations and found that women in their thirties have become a stress-vulnerable group due to the needs of young children and their own needs to advance their careers. Contrary to this, Hemmelgarn and Laing (1991) researched role strain experienced by mothers returning to work following the birth of their first child and found age to not be significantly correlated with the level of role strain experienced.

This researcher also failed to reject the null hypotheses at .05 level of probability when looking for a significant difference in LRSI scores depending upon marital status for each of the three subsamples. It is difficult to determine whether this result is attributable to marital status or possibly related to the amount of support given the subjects by their

spouses. Berkove (1979) studied perceptions of husband support and family role change for returning women students and found that high husband support was found to be associated with fewer expressions of stress. Van Meter and Agronow (1982), studied stress-related variables as predictors of role strain among married college women and found that unless the couple has a mutual agreement about roles in the marriage, the stress of unfulfilled expectations may result. Thus, those who completed the LRSI in this study may have scored low or high depending on support received from their spouses.

It is interesting to note that those divorced in all three programs had a higher LRSI mean than those married or never married. In this study, those divorced were combined with the not married in the statistical analysis performed and the question arises as to whether this skewed the findings.

There were significant differences in the scores on the LRSI of all three programs depending upon whether the subjects did or did not have dependent children living at home. Those with dependent children scored significantly higher on the LRSI than those with no dependent children at home. This is consistent with the work of Baruch et al. (1983), Wilson (1980), Gray

(1983), Cooke and Rousseau (1984), and Campaniello (1988).

Results of this study were congruent with the theoretical framework used as the basis for this study. Goode (1960) defined role strain as "the felt difficulty in fulfilling role obligations." According to Goode, multiple role obligations can be a source of role strain. In this study, even though there was no significant difference in the amount of role strain experienced when looking at marital status, there was an increase in role strain associated with having dependent children at home. According to Goode, role strain is normal and can be managed. This author agrees with Goode in that we must look at how to manage role strain of those nursing students with dependent children at home.

Recommendations for Further Research

Further research is needed regarding multiple roles and role strain and the variables affecting role strain. An improved theoretical understanding of role strain could provide insight in fostering the prevention and reduction of role strain.

This investigator recommends that this study be replicated with a larger, more diverse sample. Comparisons of role strain between different nursing

programs needs to be examined to see if the academic setting has an impact on role strain.

Additional research is also needed regarding other variables that may be linked to role strain. Further investigation into the effects of working versus nonworking on role conflict and role strain may prove informative.

Future studies should also consider individual differences in the way people perceive their roles. Choosing the roles you want and being able to control within each role may be an important factor. Role obligations that are negative for some may be positive for others and role satisfaction is likely to be an important determinant of effects of multiple roles.

This study examined role strain in relation to having dependent children living at home, but did not examine the ages of the dependent children. In future studies, an age breakdown of the dependent children living at home may give us insight as to which age groups are related to increased role strain perceived by the parent returning to school.

Additional research is also needed in examining the area of marital status. Divorced women may have increased role strain due to lack of support systems. The numbers of divorced women in this study were small

but the results of the tool indicated that some of the divorced women had very high role strain.

Lastly, research is needed to identify environmental supports such as flexible working hours, improved maternity and sick leave benefits, and day care arrangements that meet the needs of working women. Availability of these supporting structures may significantly influence perceptions of role strain.

Implications for Nursing

This study contributed to the body of knowledge by exploring multiple roles and variables that could be linked to higher levels of role strain. Having dependent children living at home created conflict for women in this study. This finding indicates the need for adequate child care arrangements for children of nursing students who return to school. Women who combine school, career, and a family must have the social support necessary to be effective in these roles. The academic institution can assist female nursing students by providing support in terms of flexible scheduling, quality childcare, and counseling. This may decrease their role strain and allow them a better opportunity to study efficiently and retain the knowledge learned.

Assessment of role strain in students enables

educators to assist students in identifying strategies and interventions that can be used so that the student can meet their career goals and prevent problems related to role strain. Educators need to understand the concept of role strain in order to better assist the students in role transition. If students are assessed to have high role strain, coping strategies can be initiated to prevent emotional problems.

The traditional division of household responsibility and provision of child care is outdated. Career decisions of women should be based on interest and intellectual capability rather than on obsolete norms. We need to recognize the rights of women to participate fully in the life of society, through education, motherhood, and employment.

If nursing students are given every opportunity to succeed, this country will realize the benefits of better educated nurses who, because of decreased role strain, have more vitality for their profession and have positive attitudes when dealing with their clients. Our health care system can not survive without dedicated, educated nurses who want to fulfill their own dreams as well as serve their community. How better can we do this than to provide our nursing students with an optimal beginning to an important

future.

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APPENDIX A

LENGACHER

ROLE STRAIN INVENTORY

**Cecile A. Lengacher, R.N., Ph.D.
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College of Nursing, Box MDC 22
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(813) 974-2191

LENGACHER ROLE STRAIN INVENTORY

The following questions are concerned with the role strain that nursing students experience. Role strain is the difficulty felt in meeting multiple role obligations. Please indicate to what degree you agree or disagree with each of the statements below by CIRCLING the correct answer. When all items are answered, lift the pages to score your inventory.

SA - Strongly agree

A - Agree

U - Uncertain

D - Disagree

SD - Strongly disagree

- | | |
|---|-------------|
| 1. My family does not make me feel guilty for having less time for them. | SA A U D SD |
| 2. My role as student does not cause me strain. | SA A U D SD |
| 3. I don't worry about my children when I am in school. | SA A U D SD |
| 4. I do not feel guilty if I need to set aside study time away from family. | SA A U D SD |
| 5. I find myself unable to satisfactorily manage routine household tasks. | SA A U D SD |
| 6. My family/significant other get much criticism because I am in school. | SA A U D SD |
| 7. I am going to school to please others. | SA A U D SD |
| 8. I am often tired and it is very difficult to handle strain. | SA A U D SD |
| 9. My family/significant others support me in my return to school. | SA A U D SD |
| 10. My significant others decrease my role strain. | SA A U D SD |
| 11. I feel better when my husband/father of children spends time with them. | SA A U D SD |
| 12. Going back to school challenges me intellectually. | SA A U D SD |
| 13. Returning to school will never be worth the economic rewards. | SA A U D SD |
| 14. Returning to school is necessary for my career, therefore the strain is worthwhile. | SA A U D SD |
| 15. Returning to school is not vital to my career and the strain is not worthwhile. | SA A U D SD |
| 16. Going back to school only adds to my mental fatigue. | SA A U D SD |
| 17. Going back to school makes me feel I am on my way to better things. | SA A U D SD |
| 18. Taking time to relax and meet my personal needs makes me feel better. | SA A U D SD |
| 19. I am able to maintain good relationships with my family while in school. | SA A U D SD |
| 20. I can pay for extra help such as typing which gives me more time. | SA A U D SD |
| 21. My family/significant others resent my returning to school. | SA A U D SD |
| 22. I feel strain when husband/father of children does not spend time with them. | SA A U D SD |
| 23. I seem to be ill more often since I am in school. | SA A U D SD |
| 24. Going back to school will not give me future security. | SA A U D SD |
| 25. Not being able to afford to pay for typing adds to my time pressures. | SA A U D SD |
| 26. I am able to handle the strain of going to school. | SA A U D SD |
| 27. I can manage my time for different roles (student, professional, personal). | SA A U D SD |
| 28. My job makes me feel worthwhile. | SA A U D SD |
| 29. I worry about my children when I am in school. | SA A U D SD |
| 30. Working in my profession is time consuming and exhausting. | SA A U D SD |
| 31. I have received no praise/recognition from colleagues since I have been in school. | SA A U D SD |

32. Quitting school would decrease my role strain.	SA A U D SD
33. My husband/significant other is not supportive to my educational pursuits.	SA A U D SD
34. I feel badly that I have eliminated community activities since I have been in school.	SA A U D SD
35. My friends criticize me for not completing my household chores.	SA A U D SD
36. I do not have time to relax or read a book.	SA A U D SD
37. I do not have enough personal time.	SA A U D SD
38. I do not seem to have time for all my life roles (student, professional, and personal).	SA A U D SD
39. Worrying and arranging child care for my children is a strain on me.	SA A U D SD
40. My role as student causes much strain for me.	SA A U D SD
41. Completing my household and student obligations and working is not as difficult as I thought.	SA A U D SD
42. I have a satisfactory place to study.	SA A U D SD
43. Returning to school will give me future economic rewards.	SA A U D SD
44. I have received praise/recognition from colleagues since I have been in school.	SA A U D SD
45. My husband/significant other is not economically supportive of my educational pursuits.	SA A U D SD
46. My family/children do not decrease their demands on me when I have to prepare for a test.	SA A U D SD
47. Going back to school helps make me feel more worthwhile.	SA A U D SD
48. I have maintained good relationships with family/children since I've returned to school.	SA A U D SD
49. My family helps me in completing household duties each week.	SA A U D SD
50. Worrying about the cost of my education adds to my strain.	SA A U D SD
51. I feel pressure from others to go back to school to maintain my skills.	SA A U D SD
52. If I don't get my housework done before school work, it causes strain.	SA A U D SD
53. I have adequate time to complete household tasks.	SA A U D SD
54. Quitting school would only increase my role strain.	SA A U D SD
55. I feel less strain if my school work is completed before housework.	SA A U D SD
56. My career decreases strain because it makes me feel important.	SA A U D SD
57. My family/significant others assist in making meals.	SA A U D SD
58. Giving up recreational activities has helped me cope with demands.	SA A U D SD
59. My family/significant others criticize me when I am unable to complete my household duties.	SA A U D SD
60. I am beginning to think going back to school has no future advantage.	SA A U D SD
61. My husband/significant other is economically supportive of my educational pursuits.	SA A U D SD
62. I do not have adequate time to complete household tasks.	SA A U D SD
63. My professional career has not suffered since I have been in school.	SA A U D SD
64. My husband/significant other is emotionally supportive of my educational pursuits.	SA A U D SD
65. Having little personal time does not bother me.	SA A U D SD
66. I have more conflicts with family/children when I am in school.	SA A U D SD
67. I do not worry about the cost of my education.	SA A U D SD

68. I feel guilty for not having time to do things with my family.	SA A U D SD
69. My role as student makes me feel good about myself.	SA A U D SD
70. My family/friends give me much emotional support.	SA A U D SD
71. I have someone who shares the household tasks and relieves me of this.	SA A U D SD
72. Sometimes I feel I should quit my job to cope.	SA A U D SD
73. I do not have a satisfactory place to study.	SA A U D SD
74. I have a system for organizing my time to meet my obligations.	SA A U D SD
75. I make special time for myself since I have been in school.	SA A U D SD
76. I have no special time for myself since I have been in school.	SA A U D SD
77. I am going to school to please myself.	SA A U D SD
78. I have maintained my personal health which prevents role strain.	SA A U D SD
79. My role as student does not make me feel good about myself.	SA A U D SD
80. My relationships with my family have deteriorated since I have returned to school.	SA A U D SD
81. My friends are supportive of me when I am unable to complete my housework.	SA A U D SD
82. I find it exhausting to continue with my household obligations in addition to studying and working.	SA A U D SD
83. I feel good about wanting to go back to school to improve my skills.	SA A U D SD
84. No one contributes to my household tasks and the burden is on me.	SA A U D SD
85. I feel guilty about eliminating activities in church and community.	SA A U D SD
86. My family/friends do not give me emotional support.	SA A U D SD
87. I have a satisfactory routine for completing household tasks.	SA A U D SD
88. I still participate in community activities that are meaningful to me.	SA A U D SD
89. I feel guilty that my family/significant others are under more stress because I am in school.	SA A U D SD
90. My significant others increase my role strain.	SA A U D SD
91. Having to give up recreational activities has increased my strain.	SA A U D SD
92. My family/children get much recognition because I am in school.	SA A U D SD
93. There never seems to be enough time to complete my obligations.	SA A U D SD
94. I do not have to worry about child care arrangements.	SA A U D SD
95. My family/significant others criticize me when I am unable to make meals.	SA A U D SD
96. I feel guilty if I spend time studying away from family/significant others.	SA A U D SD
97. My family/significant others are not under stress because I am in school.	SA A U D SD
98. My professional career has suffered since I have been in school.	SA A U D SD
99. My family/children do not demand a lot of me when they know I need to study for a test.	SA A U D SD
100. I have maintained my support of church activities and this has helped my strain.	SA A U D SD

LENGACHER
ROLE STRAIN INVENTORY
SCORING SHEETS

Cecile A. Lengacher, R.N., Ph.D.
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LENGACHER ROLE STRAIN INVENTORY

The following questions are concerned with the role strain that nursing students experience. Role strain is the difficulty felt in meeting multiple role obligations. Please indicate to what degree you agree or disagree with each of the statements below by CIRCLING the correct answer. When all items are answered, lift the pages to score your inventory.

SA - Strongly agree

A - Agree

U - Uncertain

D - Disagree

SD - Strongly disagree

- | | | | | | | |
|---|---|---|---|---|---|------|
| 1. My family does not make me feel guilty for having less time for them. | 1 | 2 | 3 | 4 | 5 | (1) |
| 2. My role as student does not cause me strain. | 1 | 2 | 3 | 4 | 5 | (2) |
| 3. I don't worry about my children when I am in school. | 1 | 2 | 3 | 4 | 5 | (3) |
| 4. I do not feel guilty if I need to set aside study time away from family. | 1 | 2 | 3 | 4 | 5 | (4) |
| 5. I find myself unable to satisfactorily manage routine household tasks. | 5 | 4 | 3 | 2 | 1 | (5) |
| 6. My family/significant other get much criticism because I am in school. | 5 | 4 | 3 | 2 | 1 | (6) |
| 7. I am going to school to please others. | 5 | 4 | 3 | 2 | 1 | (7) |
| 8. I am often tired and it is very difficult to handle strain. | 5 | 4 | 3 | 2 | 1 | (8) |
| 9. My family/significant others support me in my return to school. | 1 | 2 | 3 | 4 | 5 | (9) |
| 10. My significant others decrease my role strain. | 1 | 2 | 3 | 4 | 5 | (10) |
| 11. I feel better when my husband/father of children spends time with them. | 1 | 2 | 3 | 4 | 5 | (11) |
| 12. Going back to school challenges me intellectually. | 1 | 2 | 3 | 4 | 5 | (12) |
| 13. Returning to school will never be worth the economic rewards. | 5 | 4 | 3 | 2 | 1 | (13) |
| 14. Returning to school is necessary for my career, therefore the strain is worthwhile. | 1 | 2 | 3 | 4 | 5 | (14) |
| 15. Returning to school is not vital to my career and the strain is not worthwhile. | 5 | 4 | 3 | 2 | 1 | (15) |
| 16. Going back to school only adds to my mental fatigue. | 5 | 4 | 3 | 2 | 1 | (16) |
| 17. Going back to school makes me feel I am on my way to better things. | 1 | 2 | 3 | 4 | 5 | (17) |
| 18. Taking time to relax and meet my personal needs makes me feel better. | 1 | 2 | 3 | 4 | 5 | (18) |
| 19. I am able to maintain good relationships with my family while in school. | 1 | 2 | 3 | 4 | 5 | (19) |
| 20. I can pay for extra help such as typing which gives me more time. | 1 | 2 | 3 | 4 | 5 | (20) |
| 21. My family/significant others resent my returning to school. | 5 | 4 | 3 | 2 | 1 | (21) |
| 22. I feel strain when husband/father of children does not spend time with them. | 5 | 4 | 3 | 2 | 1 | (22) |
| 23. I seem to be ill more often since I am in school. | 5 | 4 | 3 | 2 | 1 | (23) |
| 24. Going back to school will not give me future security. | 5 | 4 | 3 | 2 | 1 | (24) |
| 25. Not being able to afford to pay for typing adds to my time pressures. | 5 | 4 | 3 | 2 | 1 | (25) |
| 26. I am able to handle the strain of going to school. | 1 | 2 | 3 | 4 | 5 | (26) |
| 27. I can manage my time for different roles (student, professional, personal). | 1 | 2 | 3 | 4 | 5 | (27) |
| 28. My job makes me feel worthwhile. | 1 | 2 | 3 | 4 | 5 | (28) |
| 29. I worry about my children when I am in school. | 5 | 4 | 3 | 2 | 1 | (29) |
| 30. Working in my profession is time consuming and exhausting. | 5 | 4 | 3 | 2 | 1 | (30) |
| 31. I have received no praise/recognition from colleagues since I have been in school. | 5 | 4 | 3 | 2 | 1 | (31) |

32. Quitting school would decrease my role strain.	5	4	3	2	1	(32)
33. My husband/significant other is not supportive to my educational pursuits.	5	4	3	2	1	(33)
34. I feel badly that I have eliminated community activities since I have been in school.	5	4	3	2	1	(34)
35. My friends criticize me for not completing my household chores.	5	4	3	2	1	(35)
36. I do not have time to relax or read a book.	5	4	3	2	1	(36)
37. I do not have enough personal time.	5	4	3	2	1	(37)
38. I do not seem to have time for all my life roles (student, professional, and personal).	5	4	3	2	1	(38)
39. Worrying and arranging child care for my children is a strain on me.	5	4	3	2	1	(39)
40. My role as student causes much strain for me.	5	4	3	2	1	(40)
41. Completing my household and student obligations and working is not as difficult as I thought.	1	2	3	4	5	(41)
42. I have a satisfactory place to study.	1	2	3	4	5	(42)
43. Returning to school will give me future economic rewards.	1	2	3	4	5	(43)
44. I have received praise/recognition from colleagues since I have been in school.	1	2	3	4	5	(44)
45. My husband/significant other is not economically supportive of my educational pursuits.	5	4	3	2	1	(45)
46. My family/children do not decrease their demands on me when I have to prepare for a test.	5	4	3	2	1	(46)
47. Going back to school helps make me feel more worthwhile.	1	2	3	4	5	(47)
48. I have maintained good relationships with family/children since I've returned to school.	1	2	3	4	5	(48)
49. My family helps me in completing household duties each week.	1	2	3	4	5	(49)
50. Worrying about the cost of my education adds to my strain.	5	4	3	2	1	(50)
51. I feel pressure from others to go back to school to maintain my skills.	5	4	3	2	1	(51)
52. If I don't get my housework done before school work, it causes strain.	5	4	3	2	1	(52)
53. I have adequate time to complete household tasks.	1	2	3	4	5	(53)
54. Quitting school would only increase my role strain.	1	2	3	4	5	(54)
55. I feel less strain if my school work is completed before housework.	1	2	3	4	5	(55)
56. My career decreases strain because it makes me feel important.	1	2	3	4	5	(56)
57. My family/significant others assist in making meals.	1	2	3	4	5	(57)
58. Giving up recreational activities has helped me cope with demands.	1	2	3	4	5	(58)
59. My family/significant others criticize me when I am unable to complete my household duties.	5	4	3	2	1	(59)
60. I am beginning to think going back to school has no future advantage.	5	4	3	2	1	(60)
61. My husband/significant other is economically supportive of my educational pursuits.	1	2	3	4	5	(61)
62. I do not have adequate time to complete household tasks.	5	4	3	2	1	(62)
63. My professional career has not suffered since I have been in school.	1	2	3	4	5	(63)
64. My husband/significant other is emotionally supportive of my educational pursuits.	1	2	3	4	5	(64)
65. Having little personal time does not bother me.	1	2	3	4	5	(65)
66. I have more conflicts with family/children when I am in school.	5	4	3	2	1	(66)
67. I do not worry about the cost of my education.	1	2	3	4	5	(67)

68. I feel guilty for not having time to do things with my family.	5	4	3	2	1	(68)
69. My role as student makes me feel good about myself.	1	2	3	4	5	(69)
70. My family/friends give me much emotional support.	1	2	3	4	5	(70)
71. I have someone who shares the household tasks and relieves me of this.	1	2	3	4	5	(71)
72. Sometimes I feel I should quit my job to cope.	5	4	3	2	1	(72)
73. I do not have a satisfactory place to study.	5	4	3	2	1	(73)
74. I have a system for organizing my time to meet my obligations.	1	2	3	4	5	(74)
75. I make special time for myself since I have been in school.	1	2	3	4	5	(75)
76. I have no special time for myself since I have been in school.	5	4	3	2	1	(76)
77. I am going to school to please myself.	1	2	3	4	5	(77)
78. I have maintained my personal health which prevents role strain.	1	2	3	4	5	(78)
79. My role as student does not make me feel good about myself.	5	4	3	2	1	(79)
80. My relationships with my family have deteriorated since I have returned to school.	5	4	3	2	1	(80)
81. My friends are supportive of me when I am unable to complete my housework.	1	2	3	4	5	(81)
82. I find it exhausting to continue with my household obligations in addition to studying and working.	5	4	3	2	1	(82)
83. I feel good about wanting to go back to school to improve my skills.	1	2	3	4	5	(83)
84. No one contributes to my household tasks and the burden is on me.	5	4	3	2	1	(84)
85. I feel guilty about eliminating activities in church and community.	5	4	3	2	1	(85)
86. My family/friends do not give me emotional support.	5	4	3	2	1	(86)
87. I have a satisfactory routine for completing household tasks.	1	2	3	4	5	(87)
88. I still participate in community activities that are meaningful to me.	1	2	3	4	5	(88)
89. I feel guilty that my family/significant others are under more stress because I am in school.	5	4	3	2	1	(89)
90. My significant others increase my role strain.	5	4	3	2	1	(90)
91. Having to give up recreational activities has increased my strain.	5	4	3	2	1	(91)
92. My family/children get much recognition because I am in school.	1	2	3	4	5	(92)
93. There never seems to be enough time to complete my obligations.	5	4	3	2	1	(93)
94. I do not have to worry about child care arrangements.	1	2	3	4	5	(94)
95. My family/significant others criticize me when I am unable to make meals.	5	4	3	2	1	(95)
96. I feel guilty if I spend time studying away from family/significant others.	5	4	3	2	1	(96)
97. My family/significant others are not under stress because I am in school.	1	2	3	4	5	(97)
98. My professional career has suffered since I have been in school.	5	4	3	2	1	(98)
99. My family/children do not demand a lot of me when they know I need to study for a test.	1	2	3	4	5	(99)
100. I have maintained my support of church activities and this has helped my strain.	1	2	3	4	5	(100)

APPENDIX B

Demographic Data Questionnaire

Please answer the following questions by placing a check in the appropriate space.

1). Student age:

☐ 18-22
☐ 23-30
☐ 31-40
☐ 41-50
☐ 51-60
☐ > 60

2). Number of children under the age of 18 living at home:

☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5 or >

3). Marital status:

☐ Married
☐ Never married
☐ Divorced
☐ Widowed

4). Work status outside of the home:

☐ Full-time
☐ Part-time
☐ Not working outside of the home

5). School status:

☐ Full-time
☐ Part-time

6). Domicile

☐ Dorm
☐ Apartment
☐ With parents
☐ Own home

APPENDIX C

CAMPUS COMMUNICATION

Date: September 20, 1993

To: Ms. Jeanette A. Gay

From: Karen Conner, Chair, HSRRC

Re: "A Study of Role Strain in Nursing Students with Multiple Roles"

Your proposal for research titled "A Study of Role Strain in Nursing Students with Multiple Roles" has been approved by the Human Subjects Research Review Committee.

One of the reviewers suggests that you consider allowing for an open discussion period after the completed questionnaires have been handed in to the researcher. A debriefing would address any negative feelings aroused by the research.

CONTRACT FOR COLLECTION OF RESEARCH DATA

I hereby give Jeanette Gay permission to collect data from the nursing students enrolled in nursing classes during the fall 1993 semester as outlined in the attached letter.

I understand you be administering the survey after class and not during class. We are in our year of Self-Study for NCA and making lots of demands on students for information.

Best of Luck on your research project.

Carol Menzel
(name)

Dir. of Planning & Institutional Resea
(title)

Oct. 4, 1993
(date)

CONTRACT FOR COLLECTION OF RESEARCH DATA

I hereby give Jeanette Gay permission to collect data from the nursing students enrolled in nursing classes during the fall 1993 semester as outlined in the attached letter.

Ellen M. Shochat
(name)

Head of Division of Nursing
(title)

Oct 4, 1993
(date)

CONTRACT FOR COLLECTION OF RESEARCH DATA

I hereby give Jeanette Gay permission to collect data from the nursing students enrolled in nursing classes during the fall 1993 semester as outlined in the attached letter.

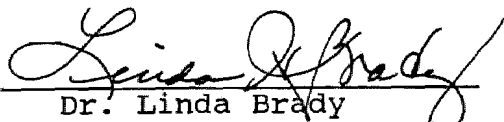
Helen T. Roberts RN MS
(name)

Assistant Director
(title)

October 6, 1993
(date)

CONTRACT FOR COLLECTION OF RESEARCH DATA

I hereby give Jeanette Gay permission to collect data from the nursing students enrolled in nursing classes during the fall 1993 semester as outlined in the attached letter. *Permission given to request same of each faculty member, who may approve or deny access to class.*


Dr. Linda Brady
Director of Division of Nursing
10/25/93
(date)

Drake University
Division of Nursing

APPENDIX D

Drake University
Division of Nursing
Des Moines, Iowa

Dear Nursing Student:

My name is Jeanette Gay and I am a graduate student in the Nursing Division at Drake University. I am conducting a study on role strain and I would really appreciate your participation in this study. Your participation would involve completion of a short demographic questionnaire and a 100 item questionnaire. There are no wrong or right answers. It takes approximately 20 minutes to complete the questionnaires and you may take as much time as you need. Individual results will be anonymous. Please do not place your name on the questionnaires.

The intention of this study is to determine perceptions of role stress or strain of the nursing student returning to school. Participation in this study is voluntary and will in no way influence your status as a student. You may decide at any time not to complete the questionnaires. You will indicate your willingness to participate in this study by completing and returning the questionnaires.

If you wish to receive a copy of the results of this study you may send a written request with a self-addressed stamped envelope to the researcher at the following address: Jeanette A. Gay, 4104 Amick Ave., Des Moines, Iowa 50310.

If you have further questions, you may contact the researcher, Jeanette Gay at 279-0010 or Dr. Mary Hansen, Drake University, Division of Nursing, at 271-2830.

Thank you very much for your participation.

Sincerely,

Jeanette A. Gay, R.N., B.S.N.

APPENDIX E

Dear Colleague:

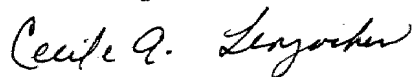
Thank you for your interest in using the Lengacher Role Strain Inventory in your research. Enclosed is a copy of the Lengacher Role Strain Inventory which you may duplicate for use in your specific research project as submitted in your signed agreement.

Please feel free to duplicate the inventory for the necessary number you need in your research project. This permission does not allow for free distribution of the inventory for use by any other individuals.

In addition I have enclosed the scoring sheet, which you will need for scoring of your results. Normative data is published in the *Journal of Nursing Education*, February 1993, Volume 32, Number 2 in the article "Development and Study of an Instrument to Measure Role Strain."

Thank you for the interest in this concept. I am continuing to refine the instrument and will notify you of future changes.

Sincerely,

A handwritten signature in cursive script that reads "Cecile A. Lengacher".

Cecile A. Lengacher, R.N., Ph.D.